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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/753,470	01/03/2001	Dennis Michael Carney	15962.0001USU1/BLD9200000	1821
23552 7590 11/13/2008				
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MINNEAPOLIS, MN 55402-0903				
EXAMINER				
PARK, CHAN S				
ART UNIT		PAPER NUMBER		
2625				
MAIL DATE		DELIVERY MODE		
11/13/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/753,470

Applicant(s)

CARNEY ET AL.

Examiner

CHAN S. PARK

Art Unit

2625

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 82-100 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 82-91 and 93-100 is/are rejected.
- 7) ☒ Claim(s) 92 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/88)
- Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Applicant's amendment was received on 7/17/08, and has been entered and made of record. Currently, **claims 82-100** are pending.

Response to Arguments

2. Applicant's arguments with respect to **claims 82-100** have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

3. Claims are objected to because of the following informalities:

Claim 82, line 16, "respond to a call by a printer component made by the printer component" appears to be redundant. A revision of the claim wording is requested.

With respect to claims 83 and 100, arguments analogous to those presented for claim 82, are applicable.

Claim 84, line 2, "for printer components" should be "for the printer components";

Claim 86, line 3, "by a printer component" should be "by the printer component";

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 84, 85 and 94 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 84 recites the limitation "a job" in line 2. It is unclear if this job is referring to the print job recited in claim 1.

Claim 84 recites the limitation "status of the job" in line 3. There is insufficient antecedent basis for this limitation in the claim. It is unclear if the job is referring to the job recited in claim 84, line 2 or the print job recited in claim 83.

Clarification/explanation from the Specification is respectfully requested.

Claim 85 recites the limitation "a printer component" in line 2. There is insufficient antecedent basis for this limitation in the claim. It is unclear if this printer component is referring to the printer component which made a call in claim 83 or another printer component.

Claim 94 recites the limitation of the interpreter entering a waiting for data state when job processing by the interpreter has started. If the job processing has been already started, it is unclear how the interpreter goes into the waiting state. Isn't the interpreter already in the processing state, not the waiting state?

Clarification/explanation is requested.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 82-88 and 100 are rejected under 35 U.S.C. 102(e) as being anticipated by Gase U.S. Patent No. 6,184,996.

With respect to claim 83, Gase discloses an apparatus for providing printer recognition and management of a print job entity, comprising:

a repository of attributes and status information associated with each print job that passes through a printer system, the repository being disposed within a printer (job queue 28 holding the job related information in col. 3, lines 51-67);

a job monitor (queue management 32 in fig. 1), disposed within the printer, for managing the repository of attributes and status information associated with each print job (col. 3, lines 31-33); and

an interface, coupled within the printer to the job monitor, the interface enabling communication between the job monitor and a plurality of printer components of the printer (a plurality of units 24, 26, 30 in printer 14), the interface allowing the printer components to access the job monitor to request access to the attributes and status information in the repository managed by the job monitor (accessing the job queue by

the server 24 & browser 26 to enable the printer 14 to respond to the client request in col. 3, lines 12-23 & lines 52-67);

wherein the job monitor further enables the job monitor to respond to a call by a printer component made by the printer component through the interface and for managing interactions between printer components accessing the job monitor through the interface in order for the job monitor to control the processing of the print job (when the client requests job status/information to the printer, a call is inherently made from the server 24 or browser 26 to the job queue in order to retrieve the requested information in col. 3, lines 12-23 & col. 4, lines 1-8).

With respect to claim 84, Gase discloses the apparatus of claim 83, wherein the interface provides an ability for the printer components to process a job according to requirements of the printer components and reports job attributes and processing status of the job for common access by other printer components (col. 3, lines 41-50).

With respect to claim 85, Gase discloses the apparatus of claim 83, wherein the interface provides a printer component access to common variables, the printer components presenting the job attributes or status information to the interface (col. 3, lines 31-36 & lines 51-67).

With respect to claim 86, Gase discloses the apparatus of claim 83, wherein the repository and the interface are provided by the job monitor, the job monitor further providing logical views to obtain a next job to be processed by the printer component and to obtain a list of all jobs in the order that they are processed (fig. 3 & col. 3, lines 59-67).

With respect to claim 87, Gase discloses the apparatus of claim 83, wherein the job monitor is used to update attributes of print jobs (fig. 3 & col. 3, lines 59-67).

With respect to claim 88, Gase discloses the apparatus of claim 88, wherein the job monitor determines a next job to process, the printer component determining valid stats for the call (fig. 3 & col. 3, lines 51-67).

With respect to claims 82 and 100, arguments analogous to those presented for claim 83, are applicable.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 89-91 and 93-99 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gase as applied to claim 83 above, and further in view of Richter et al. U.S. Patent No. 6,678,068 (hereinafter Richter).

With respect to claim 89, Gase discloses the apparatus of claim 87, but it does not explicitly disclose the job monitor including a multiplexer.

Richter, the same field of endeavor of the print job queue managing art, discloses an apparatus having a job monitor, wherein the job monitor includes a multiplexor, and wherein the valid states for a multiplexer further comprise:

an unknown state for when a job identification is requested (col. 11, lines 11-22);
and

a pull print queue state for the job when the job is stop-flowed at a port connection manager waiting for access to the printer because a print engine is processing another job (col. 11, lines 46-58);

wherein the multiplexer receives the job and selects to place the job in a job must be spooled state, a may spool state or must print state (col. 11, lines 46-58).

Since the print server of Richter allows the interleaving of two or more signals to a single terminal, the print server is construed to be a multiplexor.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the apparatus of Gase to include the job monitor of Richter.

The suggestion/motivation for doing so would have been to provide a faster job queue system by providing a plurality of different states by the multiplexer.

Therefore, it would have been obvious to combine Gase with Richter to obtain the invention as specified in claim 89.

With respect to claim 90, Richter discloses the apparatus of claim 29, wherein the multiplexer routes the incoming job to the print engine or the spooler according to which becomes available first when the job is a job that may spool (col. 11, lines 46-57).

With respect to claim 91, Richter discloses the apparatus of claim 22, further comprising a spooler (fig. 6).

With respect to claim 93, Richter discloses the apparatus of claim 22, further comprising an interpreter (fig. 6 & col. 7, line 58 ~ col. 8, line 4).

With respect to claim 94, Richter discloses the apparatus of claim 32, wherein the interpreter enters a waiting for data state when job processing by the interpreter has started, enters an interpreting state when the job is being processed by the interpreter and enters a done state when the job is finished being processed by the interpreter (col. 11, lines 33-58).

With respect to claim 95, Richter discloses the apparatus of claim 22, wherein the repository and interface are provided by the job monitor, the job monitor further handling incoming jobs with a port connection manager, wherein the port connection manager calls to a multiplexer to process the job (col. 11, lines 33-58). Since the print server of Richter allows the interleaving of two or more signals to a single terminal, the print server is construed to be a multiplexor.

With respect to claim 96, Richter discloses the apparatus of claim 22, wherein the repository and interface are provided by the job monitor, the job monitor further deciding whether to assign a job to the printer, whether to assign a job to a spooler, whether the job must wait for available resources or whether the job cannot be processed (col. 11, lines 46-58 & fig. 16).

With respect to claim 97, Richter discloses the apparatus of claim 22, further comprising the job monitor to fetch jobs in an order that is dependent upon the calling component (col. 11, lines 33-58).

With respect to claim 98, Richter discloses the apparatus of claim 36, further comprising the job monitor for examining process job states and variables to determine

the correct response and to return an appropriate job identification for a job (col. 11, lines 33-58 & fig. 28).

With respect to claim 99, Richter discloses the apparatus of claim 22, further comprising the job monitor for providing a common method of accessing the variables associated with a job for the components (figs. 28).

Allowable Subject Matter

7. **Claim 92** is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHAN S. PARK whose telephone number is (571)272-7409. The examiner can normally be reached on M-F 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (571) 272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CHAN S PARK/
Examiner, Art Unit 2625
/Edward L. Coles/
Supervisory Patent Examiner, Art Unit 2625

November 10, 2008

